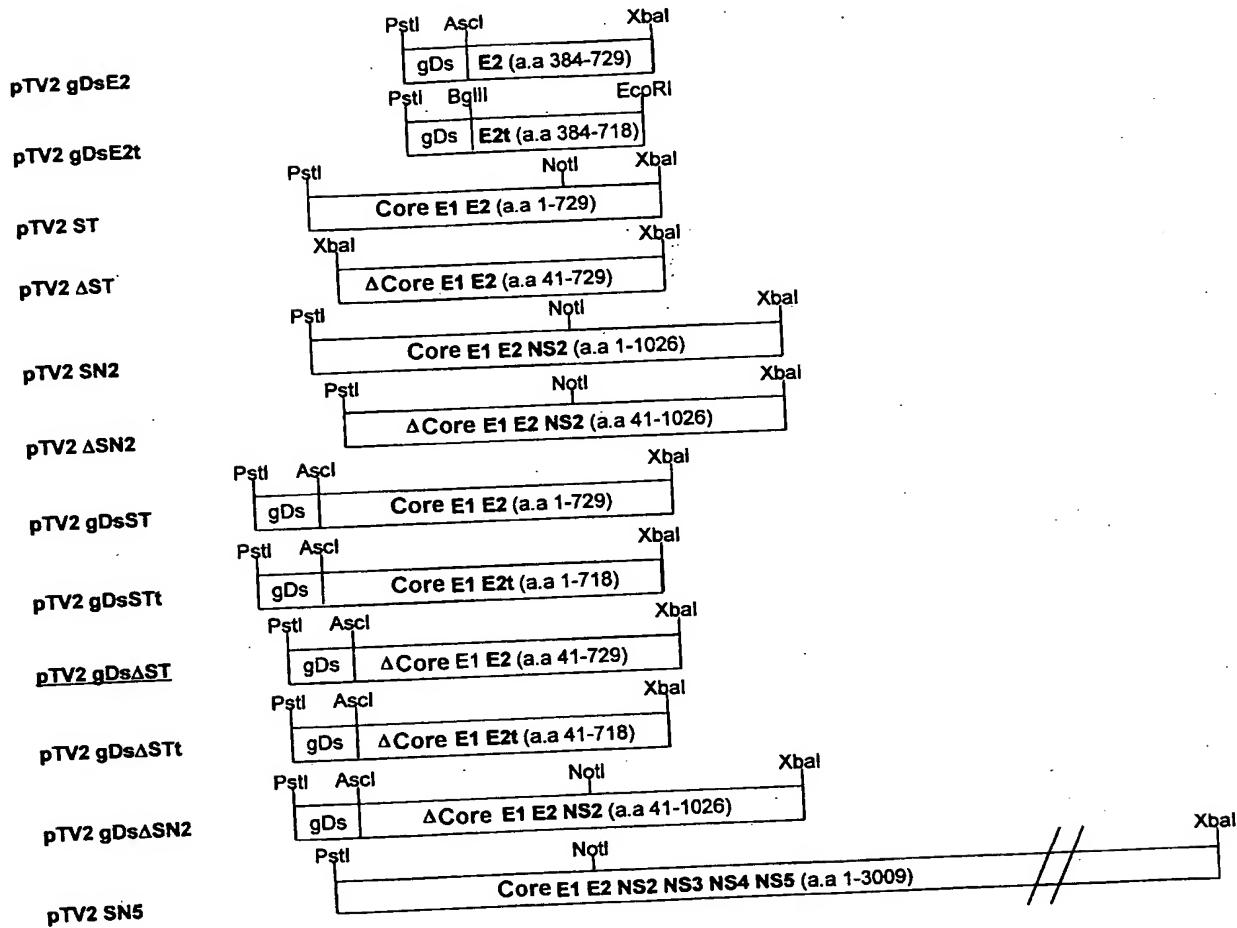


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FIGURES

FIG. 1



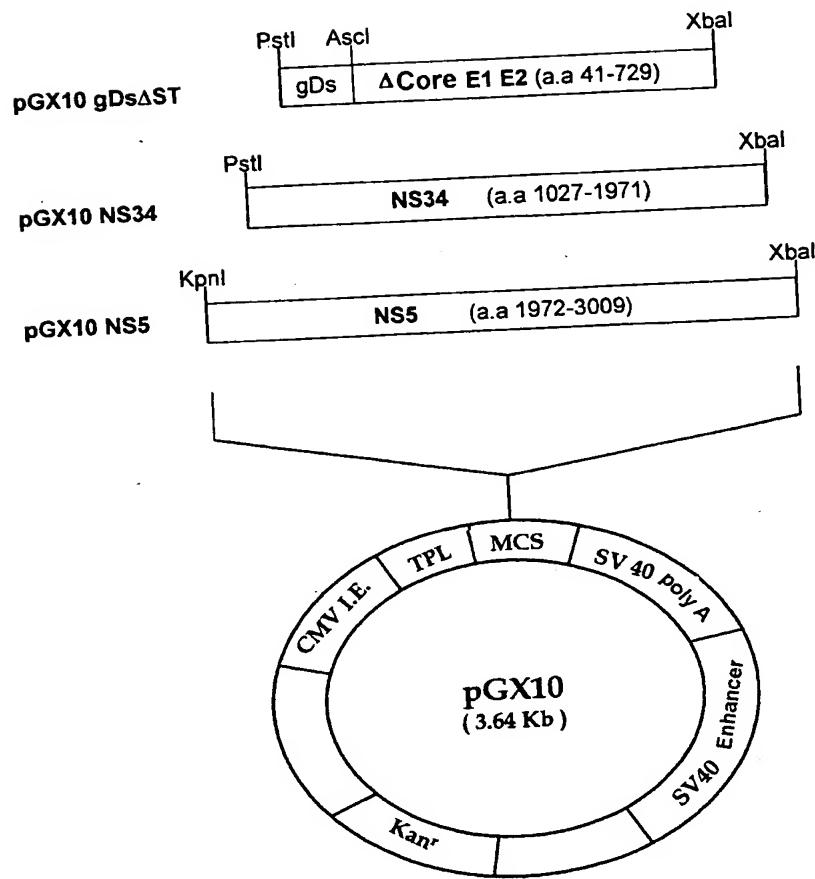
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FIG. 2

HC102

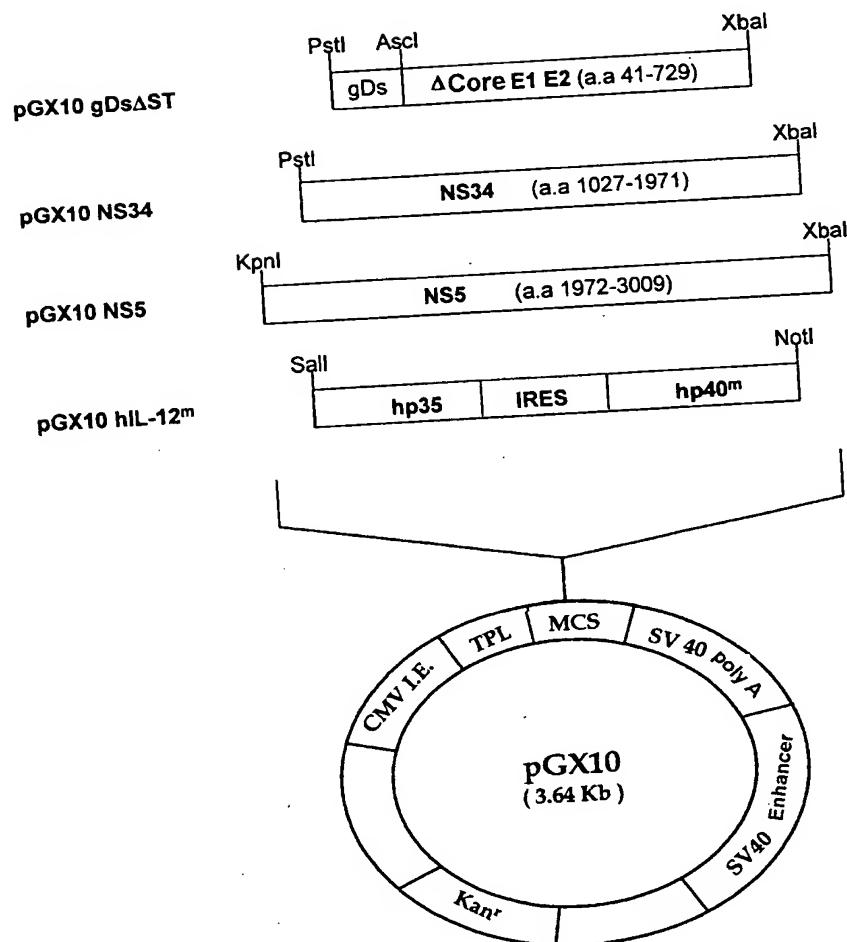


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FIG. 3

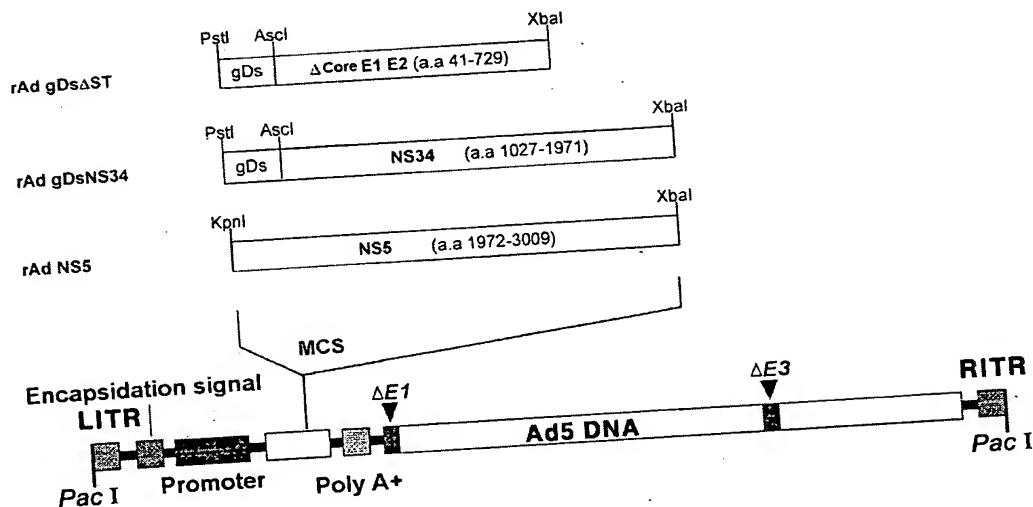
HC103



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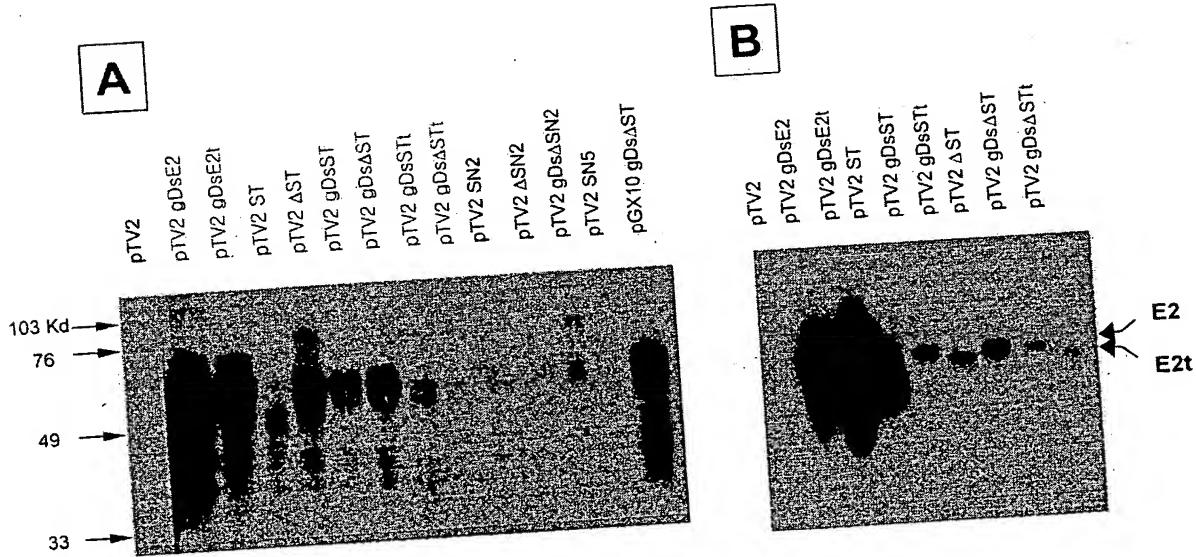
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FIG. 4



rAd HC102

FIG. 5



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FIG. 6

COS-7

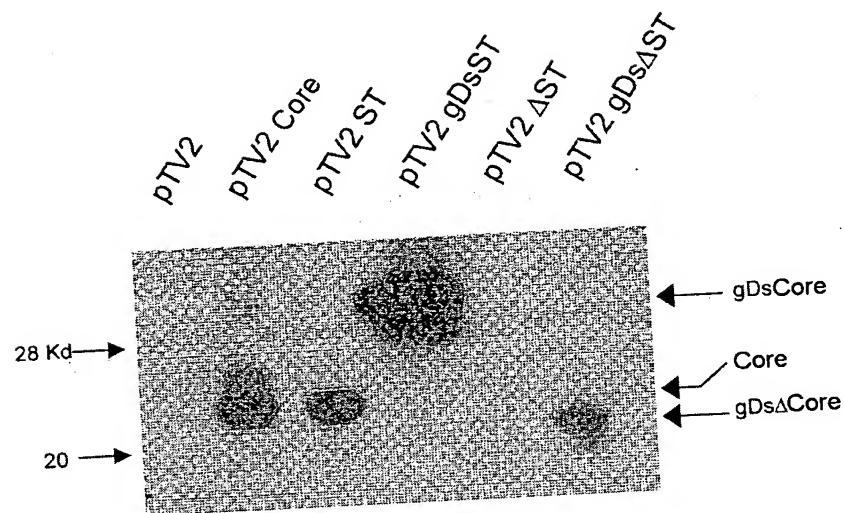
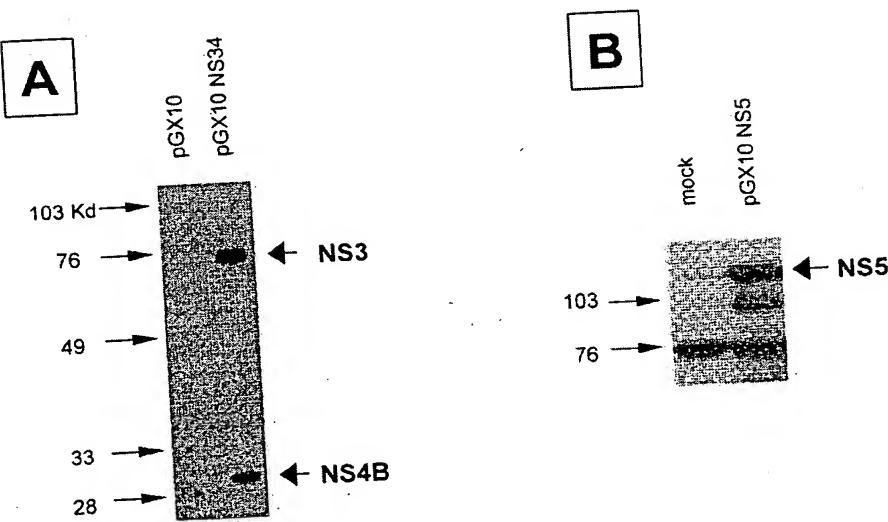


FIG. 7

COS-7

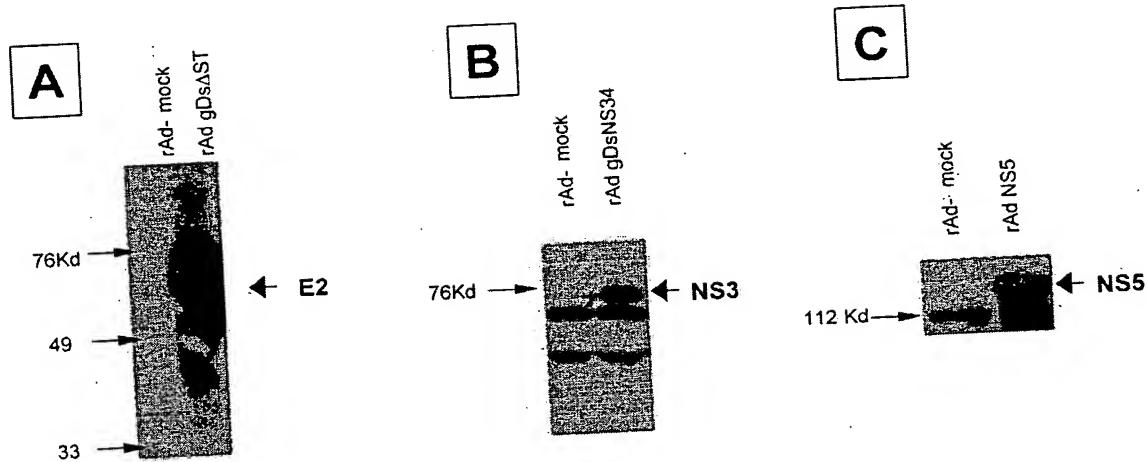


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FIG. 8

293A



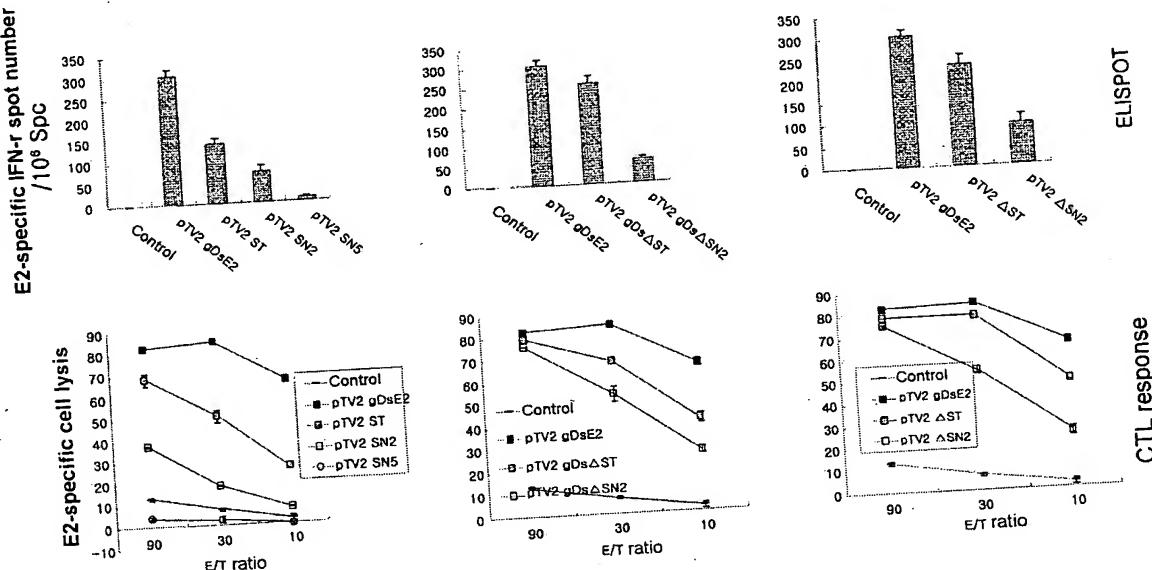
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FIG. 9

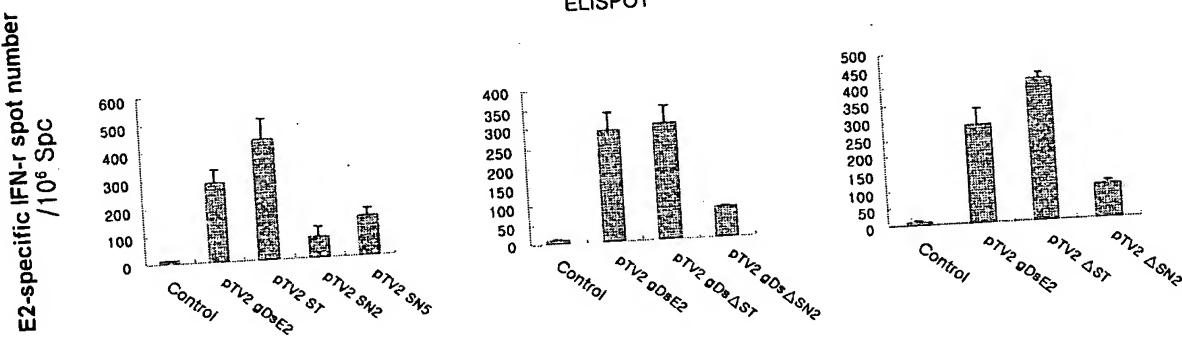
Optimization of insert size

(5 weeks after immunization)



Optimization of insert size

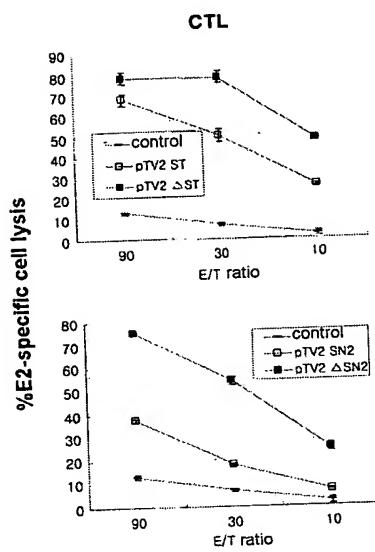
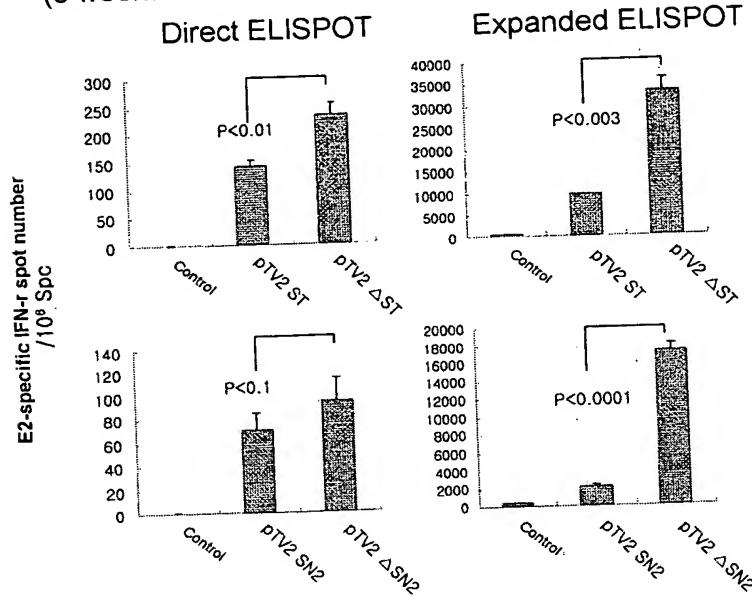
(3, 4 weeks after boosting)



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FIG. 11

Truncation of core N-terminus  
 (5 weeks after immunization)

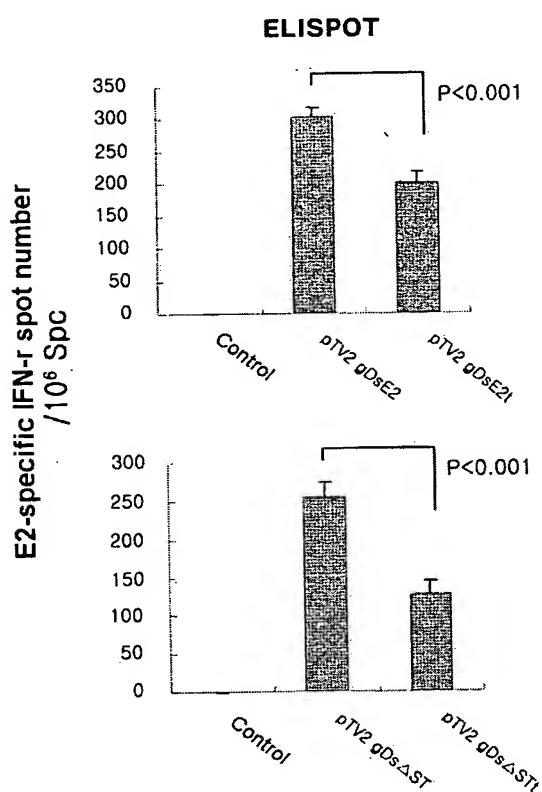


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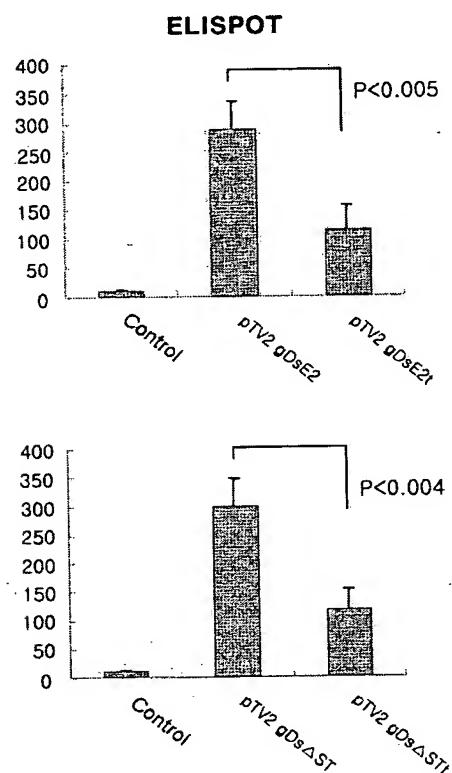
FIG. 12

### Truncation of E2 TM domain

5 weeks after immunization



3.4 weeks after boosting

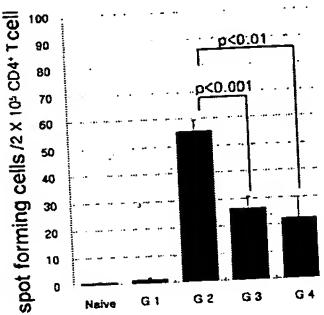


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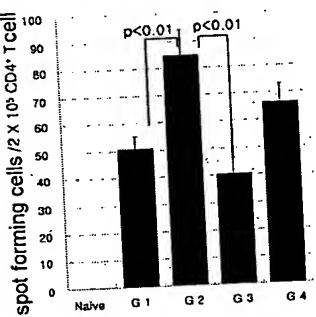
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FIG. 13

a. E2 specific IFN- $\gamma$  ELISPOT

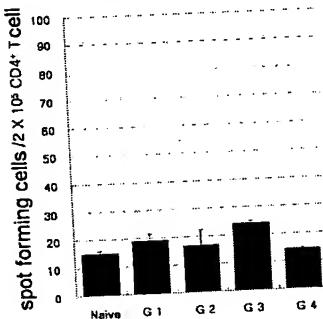


b. core specific IFN- $\gamma$  ELISPOT

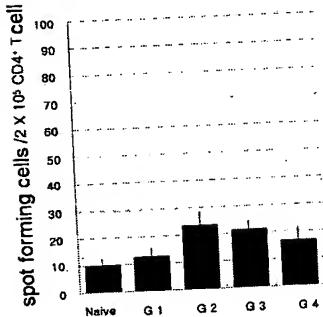


naive : saline injected control  
G 1: pGX10 gDsAST + pGX10  
mIL-12mutant injection ->  
pGX10 gDsAST + pGX10  
mIL-12mutant injection  
G 2: pGX10 gDsAST + pGX10  
mIL-12mutant injection ->  
rAd gDsAST injection  
G 3: rAd gDsAST injection ->  
rAd gDsAST injection  
G 4: rAd gDsAST injection ->  
pGX10 gDsAST + pGX10  
mIL-12mutant injection

c. E2 specific IL-4 ELISPOT



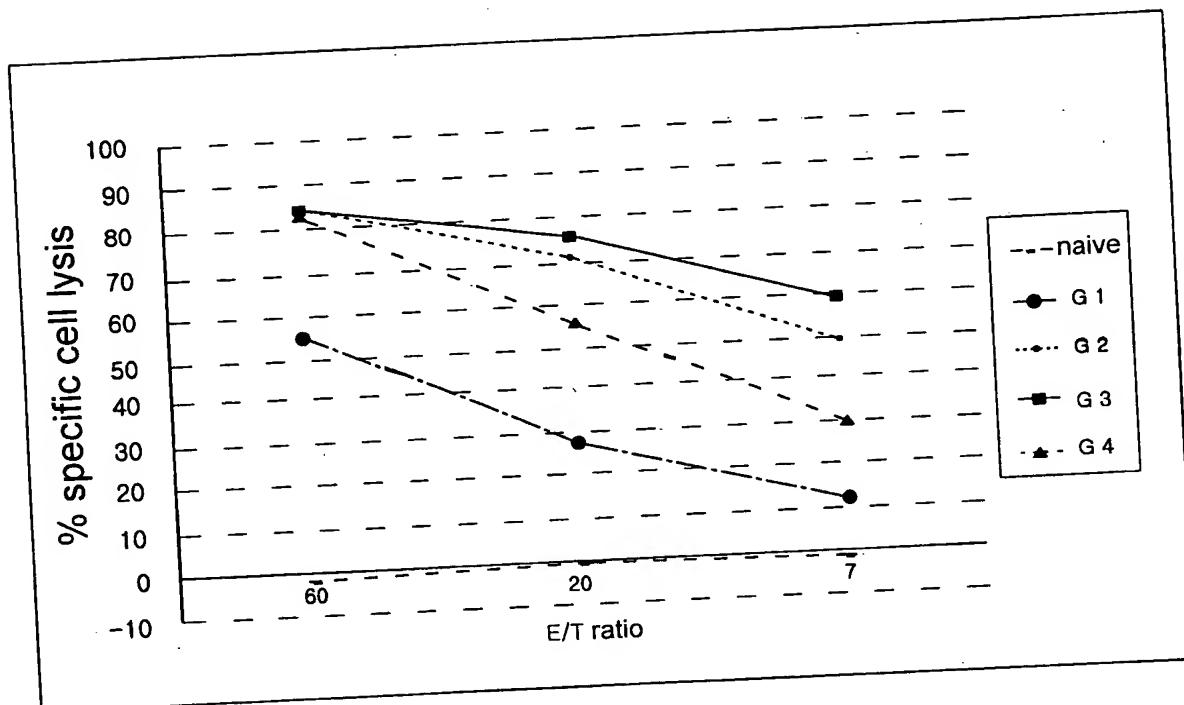
d. core specific IL-4 ELISPOT



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FIG. 14

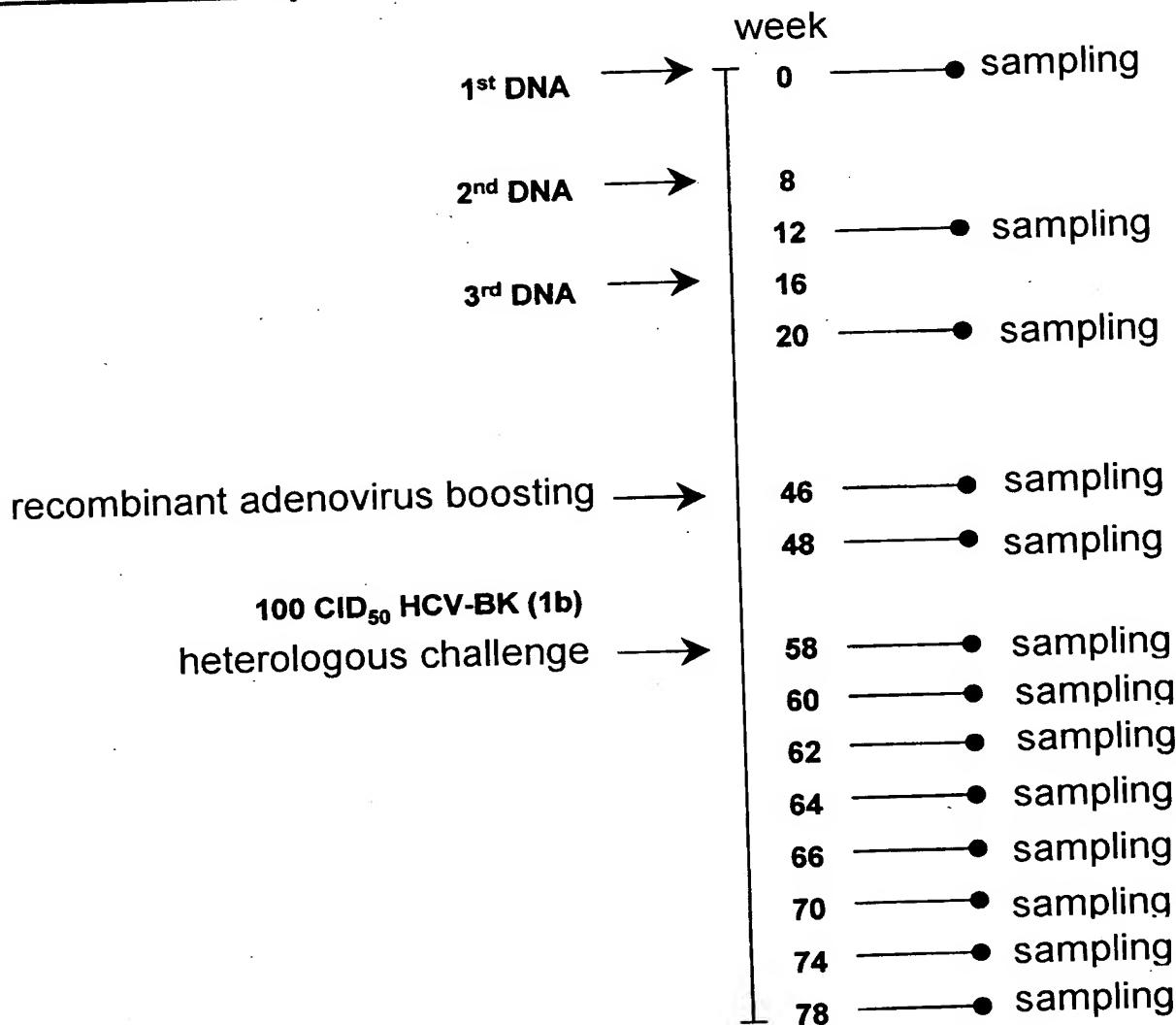


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FIG. 15

(schedule)

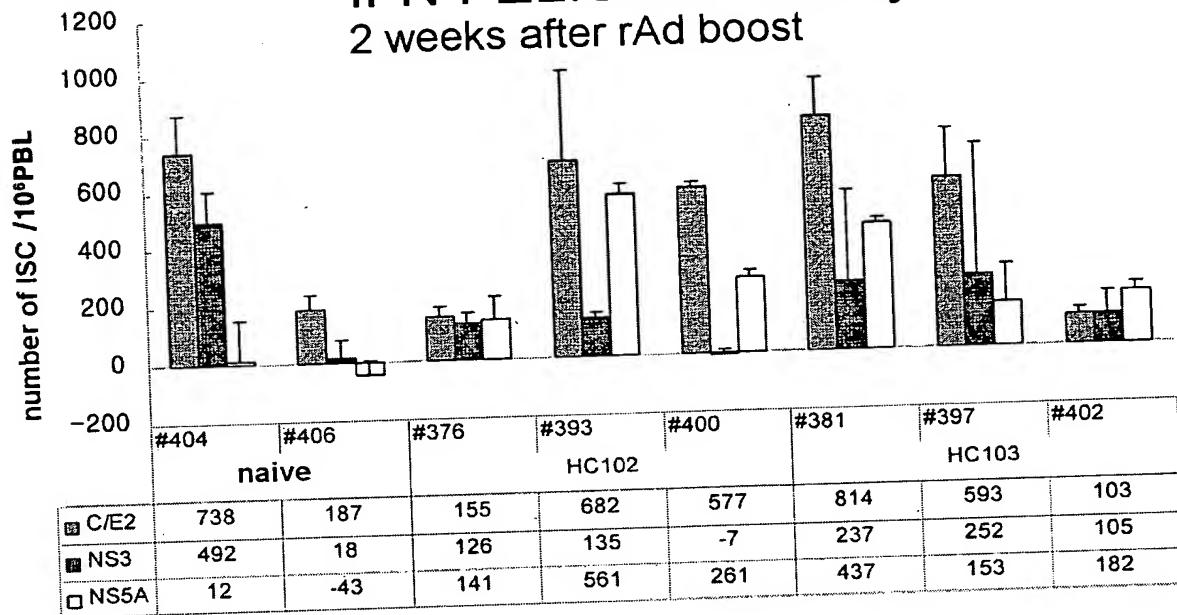
DNA prime/ rAd boost



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FIG. 16

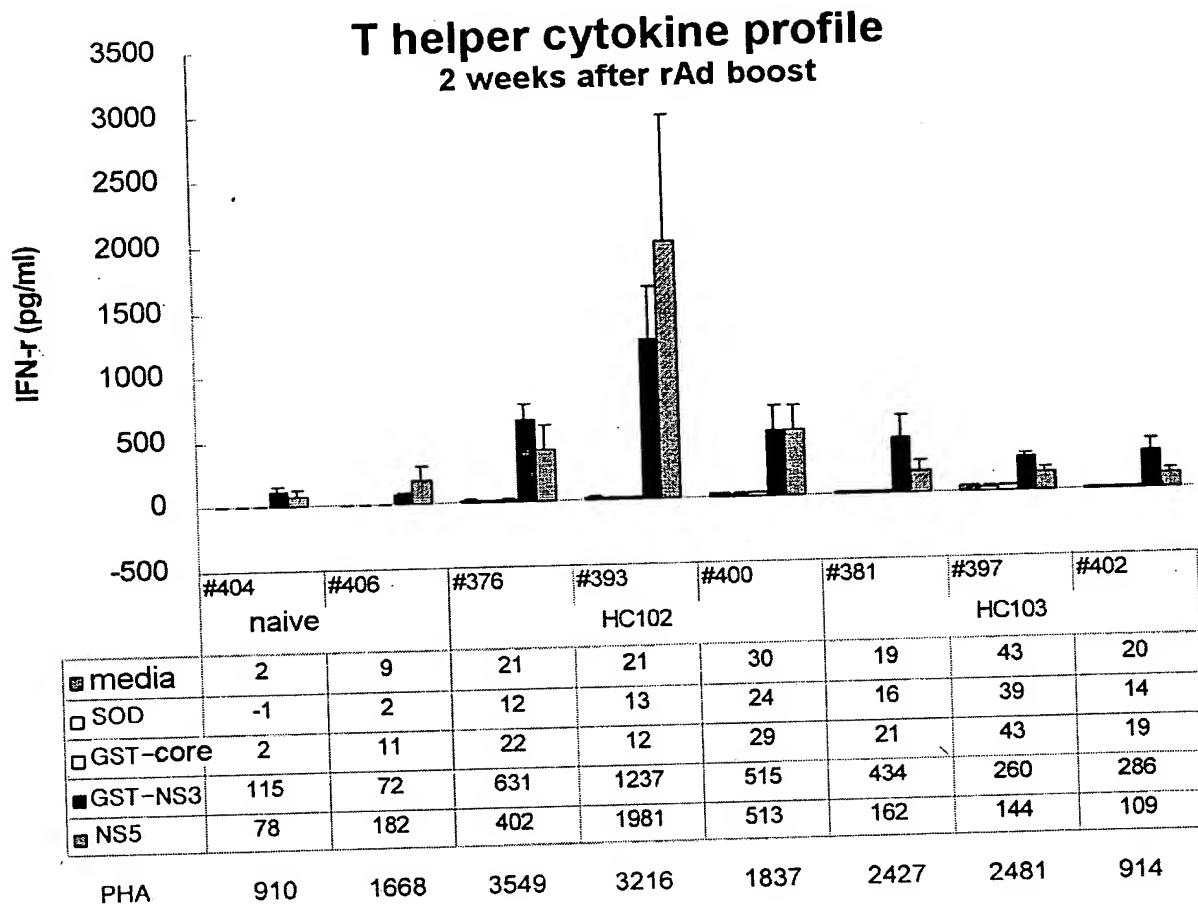
IFN-r ELISPOT Assay  
2 weeks after rAd boost



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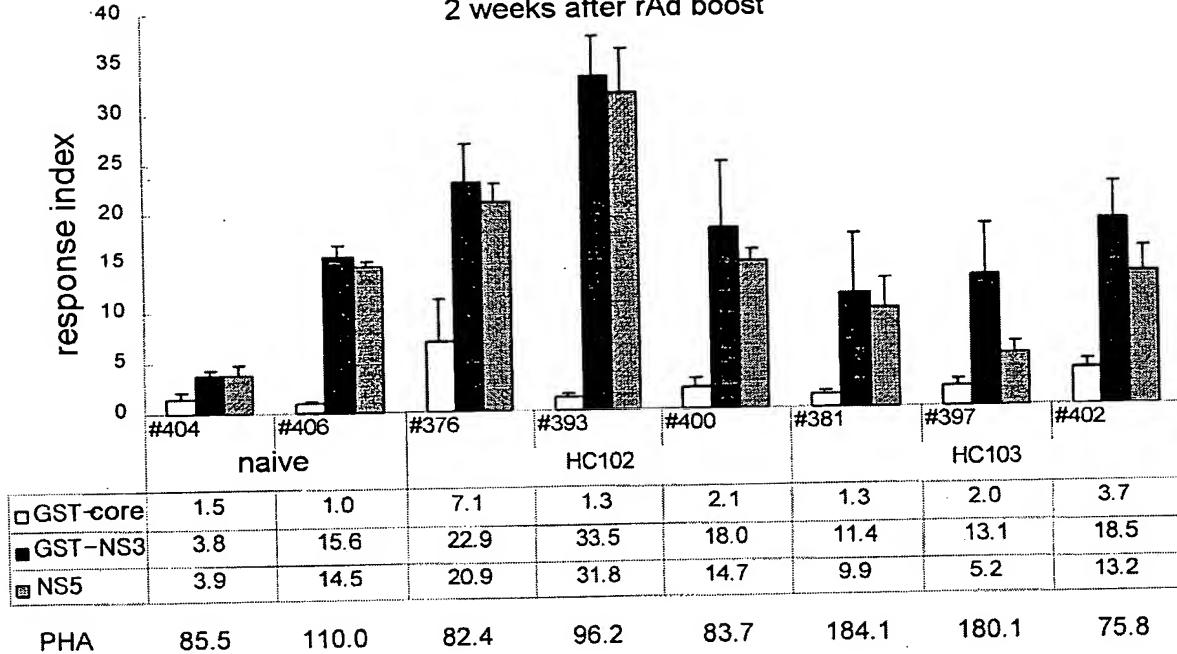
FIG. 17



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FIG. 18

T cell Proliferative response  
2 weeks after rAd boost



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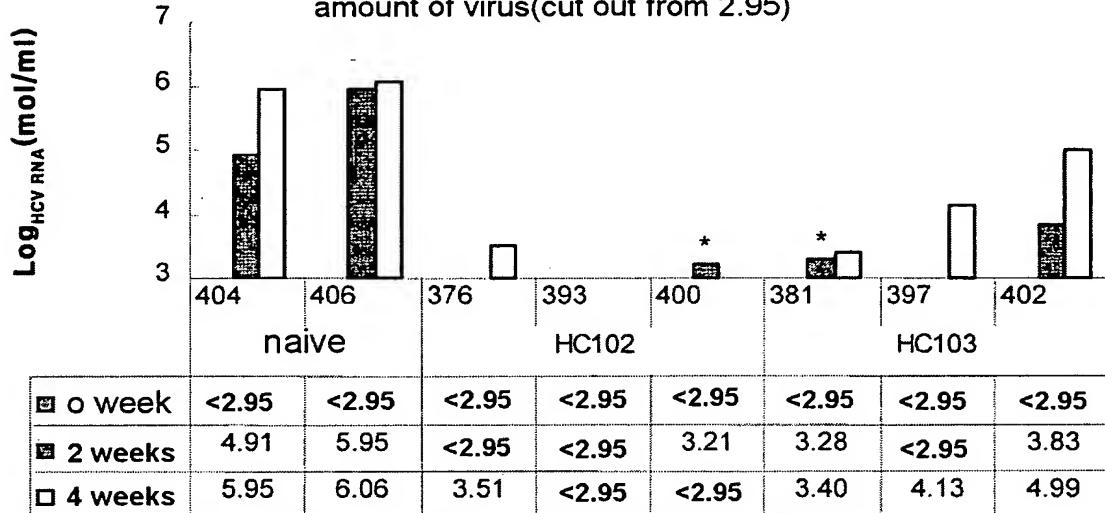
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FIG. 19

Measuring amount of HCV virus by quantitative RT-PCR  
amount of virus(cut out from 2.95)



after challenge

detection limit of HCV RNA is 2.95log<sub>10</sub>

\* mean amount of HCV RNA with triplicate measurement, one of which was below the detection limit.

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FIG. 20a

### Amino acid sequence of core peptide pool

ACore (43-191)		
No	Name	Sequence
#1	HCV43-62	RLGURATRK SERSQPRGRR
#2	HCV53-72	SERSQPRGRR QP IPKARQPE
#3	HCV63-82	QP IPKARQPE GRTWAQPGYP
#4	HCV73-92	GRTWAQPGYP WPLYGNEGLG
#5	HCV83-102	WPLYGNEGLG WAGWLLSPRG
#6	HCV93-112	WAGWLLSPRG SRPSWGPTDP
#7	HCV103-122	SRPSWGPTDP RRRSRMLGKV
#8	HCV113-132	RRRSRMLGKV IDTLCGFAD
#9	HCV123-142	IDTLCGFAD LMGYIPLUGA
#10	HCV133-152	LMGYIPLUGA PLGGUARALA
#11	HCV143-162	PLGGUARALA HGURLLEDGU
#12	HCV153-172	HGURLLEDGU NYATGNLPGC

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FIG. 20b

Amino acid sequence of E2t peptide pool

E2t (384-713)					
No	Name	Sequence	No	Name	Sequence
#13	HCV384-403	STRUTGGTEG RTTMRFV3 IF	#29	HCV554-573	WMNSTGFTKT CGGPPCDIGG
#14	HCV404-423	A3GP3QKIQL UNMNGSWHIM	#30	HCV564-583	CGGPPCDIGG UGMNTLTCPT
#15	HCV414-433	UNMNGSWHIM RTALNCNDSL	#31	HCV574-593	UGMNTLTCPT DCFRKHPEAT
#16	HCV424-443	RTALNCNDSL SSGFIAALFY	#32	HCV584-603	DCFRKHPEAT YTKCGSGPWL
#17	HCV434-453	SSGFIAALFY THKFDSSGCP	#33	HCV594-613	YTKCGSGPWL TPRCHMVDYPY
#18	HCV444-463	THKFDSSGCP ERMASCRPID	#34	HCV604-623	TPRCHMVDYPY RLWHPCTIN
#19	HCV454-473	ERMASCRPID KFAQGWGSIT	#35	HCV614-633	RLWHPCTIN FTIFKURMYU
#20	HCV464-483	KFAQGWGSIT YAESGGSDQR	#36	HCV624-643	FTIFKURMYU GGVEHRLDAA
#21	HCV474-493	YAESGGSDQR PYCWHTYAPRQ	#37	HCV634-653	GGVEHRLDAA CNUTRGERCD
#22	HCV484-503	PYCWHTYAPRQ CGIUPA3QVC	#38	HCV644-663	CNWTRGERCD LEDRDRSELS
#23	HCV494-513	CGIUPA3QVC GPyWCFTPSP	#39	HCV654-673	LEDRDRSELS PLLSTTEWQ
#24	HCV504-523	GPyWCFTPSP UUUGTTDRSG	#40	HCV664-683	PLLLSTTEWQ ULPCTSFTTLP
#25	HCV514-533	UUUGTTDRSG APTYTWGEME	#41	HCV674-693	ULPCSFITLPA LSTGLIHLH
#26	HCV524-543	APTYTWGEME TDVLLLNTR	#42	HCV684-703	ALSTGLIHLH QMIVHAQHLH
#27	HCV534-553	TDVLLLNTR PPQANWFGCT	#43	HCV694-713	QMIVHAQHLH GUGSAJUSIV
#28	HCV544-563	PPQANWFGCT WMNSTGFTKT			

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FIG. 20c

Amino acid sequence of  
NS3 protease peptide pool

NS3 protease (1029-1217)		
#44	gHCV-1029	ITAYSQQTRGLLGCITSLT
#45	gHCV-1039	LLGCITSLTGRDKNQVEGE
#46	gHCV-1069	FLATCUMGAWTUFHAGSK
#47	gHCV-1078	WTUFHAGSKTLAGPKGPIT
#48	gHCV-1088	TLAGPKGPITQMYTNUDLDL
#49	gHCV-1098	QMYTNUDLDLUGWQAPPGSR
#50	gHCV-1108	UGWQAPPGSRPLTPCTCGSS
#51	gHCV-1118	PLTPCTCGSSDLYLUTRHAD
#52	gHCV-1128	DLYLUTRHADWIPURRRGDS
#53	gHCV-1138	VIPURRRGDSRGSLPCPRPV
#54	gHCV-1148	RGSLPCPRPVSYLKGSSGGP
#55	gHCV-1158	SYLKGSSGGPLLCPSGHAVG
#56	gHCV-1158	LLCPSPGHAVGIFRAAVCTRG
#57	gHCV-1178	IFRAAVCTRGUAKAVDFIPV
#58	gHCV-1188	UAKAVDFIPVESMETTMSP
#59	gHCV-1198	ESMETTMSPVITDNSTPPA

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FIG. 20d

## Amino acid sequence of Helicase peptide pool

NS3 helicase (1208-1656)					
No	Name	Sequence	No	Name	Sequence
#60	HCU1208-1227	UFTDNUSTPPA UPQTFQVAHL	#77	HCU1458-1477	TQTUDFSLDP TFT IDTTTUP
#61	HCU1218-1237	VPQTFQVAHL HAPTGSGKST	#78	HCU1458-1487	TFT IDTTTUP QDAU3RSQR
#62	HCU1228-1247	HAPTGSGKST KUPAAYAAQG	#79	HCU1478-1497	QDAU3RSQR GRTGRGRRGI
#63	HCU1238-1257	KUPAAYAAQG YKULULNPSU	#80	HCU1488-1507	GRTGRGRRGI YRFUTPGERP
#64	HCU1248-1267	YKULULNPSU AATLGFGVYI	#81	HCU1498-1517	YRFUTPGERP SGMTDSSULC
#65	HCU1258-1277	AATLGFGVYI SKANG IDPMI	#82	HCU1518-1537	ECYDAGCAWY ELTPAETSUR
#66	HCU1268-1287	SKANG IDPMI RTGURAITTG	#83	HCU1528-1547	ELTPAETSUR LRAYLNTPGL
#67	HCU1278-1297	RTGURAITTG AP ITYSTYCK	#84	HCU1538-1557	LRAYLNTPGL PUCQDHLEFW
#68	HCU1318-1337	HSTDSTSILG IGTULDQAEI	#85	HCU1548-1567	PUCQDHLEFW ESUFTGLTHI
#69	HCU1328-1347	IGTULDQAEI AGARLVLVAT	#86	HCU1558-1577	ESUFTGLTHI DANFLSQTKQ
#70	HCU1348-1367	ATPPGSUTUP KPMIEEVALS	#87	HCU1568-1587	DANFLSQTKQ AGDNFPYLU
#71	HCU1358-1377	KPMIEEVALS RTGEIPFYGK	#88	HCU1578-1597	AGDNFPYLU YQATUCARAQ
#72	HCU1368-1387	RTGEIPFYGK AIPIEUVIKGG	#89	HCU1588-1607	YQATUCARAQ APPPSWIDQMW
#73	HCU1388-1407	RHLIFCRSKK KSDELAAKL	#90	HCU1598-1617	APPSSWIDQMW KCLTRLKPTL
#74	HCU1398-1417	KSDDELAAKL ALGLNAUAYY	#91	HCU1608-1627	KCLTRLKPTL HGPTPLLYRL
#75	HCU1408-1427	ALGLNAUAYY RGLDUSUIPT	#92	HCU1618-1637	HGPTPLLYRL GAUQMEUTLT
#76	HCU1418-1437	RGLDUSUIPT SGDUUUUATD	#93	HCU1628-1647	GAUQMEUTLT RPUTKFIMAC

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FIG. 20e

Amino acid sequence of NS5A peptide pool

NS5A (1972-2411)					
No	Name	Sequence	No	Name	Sequence
#94	gHCV-1972	SGSULRDVMDWICTLVLTDFK	#113	gHCV-2192	G3PPSLA333ASQLSAPSLK
#95	gHCV-1982	WICTLTDFKTLQSKLLPR	#114	gHCV-2202	ASQLSAPSLKATCTIHRDSP
#96	gHCV-1992	TWLQSKLLPRLPGUPFFSQC	#115	gHCV-2212	ATCTIHRDSPDADLIEAMLL
#97	gHCV-2002	LPGUPFFSCQRGYKGWURGE	#116	gHCV-2222	DADLIEAMLLWRQEMGGNIT
#98	gHCV-2012	RGYKGWURGEIGIMQTTCPG	#117	gHCV-2232	WRQEMGGNITRVESEMKGWV
#99	gHCV-2022	GIMQTTCPGAGQIAGHUKNG	#118	gHCV-2242	RVESEMKGWVILDSFEPRAE
#100	gHCV-2042	SMRIUGPRTCSMTWNGTFFI	#119	gHCV-2252	LDSFEPRAEEDEREUSUPA
#101	gHCV-2052	SMTWNGTFFIAYTTGPCSP	#120	gHCV-2262	EDEREUSUPAEILRRSRKFP
#102	gHCV-2062	AYTTGPCSPSPAPNYSRAL	#121	gHCV-2272	EILRRSRKFPAMPIWARP
#103	gHCV-2072	SPAPNYSRALWRUAEEYUE	#122	gHCV-2292	YMPPLLESWKDPDYUPPUH
#104	gHCV-2082	WRUAEEYUEVTRUGDFHYU	#123	gHCV-2302	DPDYVPPVUHGCPLPPTKAA
#105	gHCV-2092	VTRUGDFHYUTGUTTDNUKC	#124	gHCV-2322	PIPPPRRKRTIVLTTESTUSS
#106	gHCV-2102	TGUTTDNUKCPQCQUPAPEFF	#125	gHCV-2332	IVLTTESTUSSALAELATKTF
#107	gHCV-2122	TELDGURLHRYAPACKPLLR	#126	gHCV-2342	ALAELATKTFGGSGSWAADS
#108	gHCV-2132	YAPACKPLLRDEUSFQUGLM	#127	gHCV-2352	GGSGSGSWAADSCTATAPPDQT
#109	gHCV-2152	QYLUGSQLPCEPEPDVAULT	#128	gHCV-2372	SDDGDIKESDUESYSMSPPLE
#110	gHCV-2162	EPEPDVAULTSMLTDPSSHIT	#129	gHCV-2382	ESYSSMSPPLEGEPGDPDLSD
#111	gHCV-2172	SMLTDPSSHITAETAKRRLAR	#130	gHCV-2392	GEPGDPDLSDGSWSTU3EEA
#112	gHCV-2182	AETAKRRLARGSPPSLA333			

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